

Claims

- [c1] 1. A circuit breaker comprising:
a set of electrical contacts;
a first actuator in fluid communication with the set of electrical contacts;
a second actuator in operable communication with the first actuator; and
an operating mechanism in operable communication with the set of electrical contacts and the second actuator;
wherein pressurized gas created by separation of the set of electrical contacts acts on and drives the first actuator, which acts on and drives the second actuator, which effectuates tripping of the operating mechanism.
- [c2] 2. The circuit breaker of Claim 1, further comprising:
a base and a cover;
wherein the first actuator comprises a mechanical actuation arm accessible by a trip tool prior to assembly of the cover onto the base.
- [c3] 3. The circuit breaker of Claim 2, wherein:
the mechanical actuation arm is not accessible by the trip tool subsequent to assembly of the cover onto the

base.

- [c4] 4. The circuit breaker of Claim 2, further comprising:
a cassette configured to house the set of electrical contacts;
wherein the mechanical actuation arm is accessible external to the cassette.
- [c5] 5. The circuit breaker of Claim 2, further comprising:
a cassette configured to house the set of electrical contacts and defining an exhaust port in fluid communication with the set of electrical contacts;
wherein the mechanical actuation arm is accessible via the exhaust port.
- [c6] 6. The circuit breaker of Claim 1, wherein the first actuator is rotatably disposed at a housing, the set of electrical contacts being disposed in the housing.
- [c7] 7. The circuit breaker of Claim 2, wherein:
an electrical contact in the set of electrical contacts is mounted on an arm; and
the first actuator is responsive to the arm in response to the set of electrical contacts being separated under a short circuit condition.
- [c8] 8. The circuit breaker of Claim 2, comprising:
a first separable conduction path comprising the set of

electrical contacts and being associated with a first phase of an electrical circuit;
a second separable conduction path comprising a second set of electrical contacts and being associated with a second phase of the electrical circuit; and
a third actuator in fluid communication with the second set of electrical contacts;
wherein the third actuator is in operable communication with the second actuator;
wherein the operating mechanism is in operable communication with the second set of electrical contacts;
and
wherein pressurized gas created by separation of the second set of electrical contacts acts on and drives the third actuator, which acts on and drives the second actuator, which effectuates tripping of the operating mechanism.

[c9] 9. The circuit breaker of Claim 8, wherein the third actuator is coupled to the first actuator.

[c10] 10. The circuit breaker of Claim 2, wherein:
the base comprises an access hole; and
the mechanical actuation arm is accessible by a trip tool subsequent to assembly of the cover onto the base.

[c11] 11. A circuit breaker comprising:

a first set of electrical contacts;
a second set of electrical contacts; and
means for separating the second set of electrical contacts in response to a predetermined level of pressurized gas created by separation of the first set of electrical contacts;
wherein the means for separating further comprises means for separating the first and the second set of electrical contacts in response to the means for separating being mechanically actuated.

[c12] 12. The circuit breaker of Claim 11, further comprising:
a base and a cover;
wherein the means for separating is accessible via a mechanical tool in the absence of the cover being assembled onto the base.

[c13] 13. The circuit breaker of Claim 12, wherein:
the means for separating is not accessible via a mechanical tool in the presence of the cover being assembled onto the base.

[c14] 14. The circuit breaker of Claim 12, further comprising:
means for supporting the first set of electrical contacts;
wherein the means for separating is accessible via a mechanical tool external to the means for supporting.

- [c15] 15. The circuit breaker of Claim 12, further comprising:
means for supporting the first set of electrical contacts,
the means for supporting comprising means for exhausting arc gas;
wherein the means for separating is accessible via a mechanical tool internal to the means for exhausting.
- [c16] 16. The circuit breaker of Claim 12, wherein the means for separating further comprises:
means for separating the second set of electrical contacts in response to a predetermined level of short circuit current at the first set of electrical contacts resulting in a blow open separation thereof and a mechanical impact at the separation means.
- [c17] 17. The circuit breaker of Claim 12, wherein:
the base comprises an access hole; and
the means for separating is accessible via a mechanical tool inserted through the access hole subsequent to the cover being assembled onto the base.
- [c18] 18. A circuit breaker comprising:
a base and a cover;
a separable conduction path disposed within the base and the cover;
an operating mechanism disposed within the base and the cover and in operable communication with the separable

able conduction path;
a first actuator in fluid communication with the separable conduction path; and
a second actuator in operable communication with and between the first actuator and the operating mechanism;
wherein pressurized gas created by separation of the separable conduction path acts on and drives the first actuator, which acts on and drives the second actuator, which effectuates tripping of the operating mechanism.

- [c19] 19. The circuit breaker of Claim 18, further comprising:
a first cassette housing the separable conduction path and the first actuator; and
a second cassette housing a second separable conduction path and a third actuator, the third actuator in fluid communication with the second separable conduction path and in operable communication with the second actuator;
wherein pressurized gas created by separation of the separable conduction path acts on and drives the first actuator, which acts on and drives the second actuator, which effectuates tripping of the operating mechanism;
and
wherein pressurized gas created by separation of the second separable conduction path acts on and drives the third actuator, which acts on and drives the second actu-

ator, which effectuates tripping of the operating mechanism.

- [c20] 20. The circuit breaker of Claim 19, wherein:
the first actuator comprises an actuation finger responsive to a mechanical force for tripping the operating mechanism, the actuation finger being accessible external to the first cassette prior to assembly of the cover onto the base, and not accessible subsequent to assembly of the cover onto the base.
- [c21] 21. The circuit breaker of Claim 20, wherein:
the third actuator comprises a second actuation finger responsive to a mechanical force for tripping the operating mechanism, the second actuation finger being accessible external to the second cassette prior to assembly of the cover onto the base, and not accessible subsequent to assembly of the cover onto the base.
- [c22] 22. The circuit breaker of Claim 21, wherein:
the first actuator and the third actuator are coupled together such that movement at one results in movement at the other.